

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Diab, et al. ) Group Art Unit 3736  
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 Appl. No. : 08/943,511 )  
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 Filed : October 6, 1997 )  
 )  
 For : SIGNAL PROCESSING )  
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 )  
 Examiner : E. Winakur )

AUG 18 2000

AMENDMENT

Assistant Commissioner for Patents  
 Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated June 6, 2000, Applicants respectfully submit the following amendments and comments in connection with the above-captioned application.

IN THE CLAIMS:

Please delete Claims 39-41 and 66-70.

Please amend the following claims:

(Amended) A physiological monitoring method comprising the steps of:  
 receiving at least two measured intensity signals generated by the detection of at least two wavelengths of light transmitted through body tissue, each of said at least two intensity signals having a first portion dependent on attenuation of said light due to arterial blood and a second portion dependent on attenuation of said light due to motion induced variation in the body tissue; and

determining arterial oxygen saturation during motion by filtering at least one of said intensity signals with a Kalman filter to generate an approximation of arterial oxygen saturation during motion, and selecting a resulting arterial oxygen saturation based upon